## Remarks:

Applicant has amended the claims to overcome the objections and to more clearly recite the invention. Applicant respectfully traverses the Examiner's rejection of the claims and believes that the claims as amended are allowable over the art of record.

Applicant is concerned about the Examiner's lack of acknowledgment of accepted industry definitions of terms as well as terms defined by the Applicant as his own lexicographer. As related in the previous response, ceramic materials belong to the so-called "mineron" class of materials. Minerons are a broader class of materials than ceramics, as rectangles are a broader class of polygons than squares. Applicant was not arguing that the claims include limitations to mineron materials since ceramic materials are a narrower class to begin with. Silicon dioxide is a mineral, minerons are not minerals, and silicon dioxide is not a mineron, so silicon dioxide is not a ceramic material. Thus, the Examiner's insistence that silicon dioxide is a ceramic material is simply incorrect, and silicon dioxide can not in any way be interpreted as anticipating the instant claims unless the Examiner can cite a reference that clearly states that silicon dioxide is a ceramic material.

Further, the applied references teach away from the claimed vessel since **the claimed vessel is made of metal** with an insulating liner. The applied references disclose vessels made from non-metals.

The Examiner rejected claims 1-10 under 35 U.S.C. § 103(a) as being unpatentable over "the admitted prior art" in view of Reuter (U.S. Patent No. 4,995,595). By "admitted prior art" Applicant believes the Examiner means German Patent Documents 29 17 577 A1, European Patent Document 0 895 490 B1, and German Patent Document 198 02 342. Applicant points out that **the claimed vessel is made of metal**, whereas the vessels of the prior art applied by the Examiner are not made of metal. This is a fundamental difference that completely destroys the rejections the Examiner has made. An advantage of the claimed invention is that metal vessels can be fitted with the ceramic fiber material to enhance operation of the vessels, reflecting a cost savings.

German Patent Document 29 17 577 A1 discloses a heat-resistant collecting vessel for leakage melt and switch elements detecting such melt. The vessel is made from a NON-METAL. There is no disclosure of, for example, an open and closed metal vessel for holding melting metals, holding molten metals, and transporting said liquid metals comprising a selectively open and closed cover, heaters, and at least one ceramic thermally insulating layer of at least one of a fiber and an expandable material forming a textile surface structure covering the internal surfaces of the cavity and the at least one discharge channel as required, for example, by instant claim 1. Nor is there a suggestion in the document to combine elements from any other references to achieve the limitations of Applicant's claims.

European Patent Document 0 895 490 B1 and German Patent Document 198 02 342 disclose a NON-METAL crucible furnace for low-pressure casting or filling a cold chamber of a die casting machine. There is no disclosure of, for example, an open and closed metal vessel for holding melting metals, holding molten metals, and transporting said liquid metals comprising a selectively open and closed cover, heaters, and at least one ceramic thermally insulating layer of at least one of a fiber and an expandable material forming a textile surface structure covering the internal surfaces of the cavity and the at least one discharge channel as required, for example, by instant claim 1. Nor is there a suggestion in the document to combine elements from any other references to achieve the limitations of Applicant's claims.

Reuter discloses a smelting crucible made of a NON-METAL fibrous mineral material that is stabilized on its outer casing surface via a reinforcing device to enable use of the crucible with larger charge weights. Ceramic materials, as required in the instant application and among which even ceramic fiber is counted, belong to so-called "mineron" class of materials. Minerons are recognized as being distinct from minerals. Fibers whose amorphous substance has been treated under high temperatures are referred to as "ceramic fibers." There is no disclosure of, for example, an open and closed ***metal*** vessel (made from metal) for holding hot and melting metals and to transport said liquid metals and comprising a selectively open and closed cover with a displaceable furnace riser pipe of the closed vessel on the cover, at least one thermally insulating material subtending the inside space of the vessel; and a textile 3D-surface structure lining the cavity as required, for example, by instant claim 1. Nor is there a suggestion in the document to combine elements from any other references to achieve the limitations of Applicant's claims.

Applicant notes that ceramic materials, as required in the instant application and among which ceramic fiber is counted, belong to the so-called "mineron" class of materials. Minerons are recognized as being distinct from minerals, and ceramic fibers are fibers whose amorphous substance has been treated under high temperatures. Additionally, minerals and minerons, according to their origin, are inorganic. A significant difference between minerals and minerons is that minerals are found in nature, while minerons are industrially produced. Moreover, minerals and minerons are different in their structure: minerals are crystalline and anisotropic, while minerons are amorphous and isotropic.

Ceramic fibers are therefore minerogen, i.e. industrially produced from minerals. These are made of quartz, aluminum and zirconium. Only by joining woven ceramic fibers, texturized with high resistance against temperature and thermal shocks and high coefficient of elasticity, is it now possible to obtain a novel refractory coating in smelting metal vessels as recited in the instant claims. The charge weight can be now up to 3 metric tons.

The Examiner cites increased strength with light weight as motivation to combine the allegedly disclosed/admitted prior art features. However, the Examiner has not provided objective evidence of such a motivation to combine, such as in one or more of the cited references. Thus, this is a conclusory statement on the part of the Examiner, or perhaps hindsight reconstruction based on Applicant's own disclosure. These practices are improper, as the Courts have indicated repeatedly in cases such as *In re Fine*, *In re Jones*, and *In re Lee*, among many others. Absent objective evidence of a suggestion or motivation in the prior art, there is no *prima facie* case for obviousness of the claims.

Thus, Reuter and the documents cited in Applicant's specification can not be used alone or in combination to reject the instant claims since they do not disclose all elements of, for example, instant claim 1 and/or suggest the inclusion of such elements.

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In view of the foregoing amendment and remarks, the subject application is believed to be in condition for allowance. Therefore, further consideration and allowance of the subject application is requested. If the Examiner considers personal contact advantageous to the disposition of this case, please call Applicant's Attorney, David E. Henn at (585) 325-4618, Shlesinger, Fitzsimmons & Shlesinger, or fax him at (585) 232-5997.

Respectfully submitted,

David E. Henn 28 March 2006
Attorney for Applicant
Registration No. 37,546

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